

Remarks & Arguments

In the Office Action dated October 18, 2007, the Examiner noted that Claims 1-20 are pending in the application, and that Claims 1-20 are rejected. Applicant notes for the record that the Office Action dated October 18, 2007 contains a new ground of rejection under 35 U.S.C. 112 second paragraph and maintains the rejections under 35 U.S.C. 101 and 103 asserted in the Office Action dated April 6, 2007. Applicant submitted a response on July 6, 2007 to the Office Action of April 6, 2007. Applicant's response submitted on July 6, 2007 contained amendments and arguments rebutting all grounds of rejection alleged in the April 6, 2007 Office Action.

On July 19, 2007 the Office issued a Notice of Non-Compliant Response indicating that the Amendments to the Claims section of Applicant's response filed July 6, 2007 did not contain proper status identifiers and indications of inserted and deleted text. On July 26, 2007 Applicant submitted a supplemental response properly containing only the corrected section of the Amendments to the Claims containing proper status identifier and indications of inserted and deleted text.

In the present Office Action dated October 18, 2007, the Examiner indicates in his Response to Arguments that he only considered Applicant's response filed July 26, 2007 containing only the Amendments to the Claims and note the Remarks and Arguments contained in Applicant's response filed July 6, 2007. Accordingly, Applicant herein submits arguments rebutting the new ground of rejection under 35 U.S.C. 112 second paragraph. Furthermore,

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Applicant herein resubmits, for further examination by the Office, the arguments that in combination with the amendments, entered in response to Applicant's response filed July 26, 2007, rebut the grounds of rejection under 35 U.S.C. 101 and 103. The re-submitted arguments have been supplemented with an argument that the currently maintained rejections fail to establish a prima facie case of obviousness as a matter of law in view of the amendments filed July 26, 2007.

*Rejections Under 35 U.S.C. 112, Second Paragraph*

The Office alleges that Claims 1, 6, 14 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully submits that the rejection is meritless. First, the Examiner admits that the amendments to Claims 1, 6, 14 and 18 are supported by the specification. Secondly, the fact that a claim containing a plurality of limitations does not render the claim indefinite because some limitations are prior art, and in particular applicant admitted prior art (AAPA). Instead, limitations in a claim that are prior art, and in particular AAPA, should instead be argued in supporting a rejection under 35 U.S.C. 102 and/or 103.

*Rejections Under 35 U.S.C. 101*

Claims 1-20 are rejected under 35 U.S.C 101 as being directed to non-statutory subject matter. Applicant respectfully maintains that the independent claims 1, 6 and 14 do not claim a mathematical formula, a computer that solely calculates a mathematical formula or a computer disk that solely stores a mathematical formula. Applicant further maintains that claims drawn to a process containing mathematical algorithms are patentable if the process produces a useful, concrete, tangible result without pre-empting other uses of the mathematical principle. See MPEP 2106. In particular, independent Claims 1, 6 and 14 produce a useful, concrete and tangible result of determining similarity between a first string and a second string, without pre-empting other uses of the Levenshtein matrix, Levenshtein distance, least common substring, Levenshtein score or least common substring score. Furthermore, Claims 1, 6 and 14 as amended recite the useful, concrete and tangible process of “determining if said first string is a match to said second string based upon said similarity” or “numerical score.” Applicant therefore respectfully submits that Claims 1-20 are directed to statutory subject matter. Accordingly, Applicant requests that the 35 U.S.C. 101 rejection of Claims 1-20 be withdrawn and that Claim 1-20 be allowed.

*Rejections Under 35 U.S.C. 103*

Claims 1-5 stand rejected under 35 U.S.C. 103 as being obvious in view of the combination of U.S. Patent No. 6,742,124 to Kilpatrick and U.S. Patent No. 6,697,844 to Chan.

With regard to **Claim 1**, the Office refers to Kilpatrick as teaching determining a Levenshtein distance between a first and second string from the calculation of a Levenshtein matrix. The Office further refers to Chan as teaching **separately** determining a longest common substring between a first and second string. However, Chan does not teach or suggest determining the longest “from said Levenshtein matrix” as recited in Claim 1. Instead, Chan specifically discloses that the longest common substring is separately determined according to the steps of 407 through 423, which does not include the calculation of a Levenshtein matrix. Therefore, if one skilled in the art were to combine the teachings of Kilpatrick and Chan they would first calculate the Levenshtein matrix, second determine the Levenshtein distance from the Levenshtein matrix and third **separately calculate the longest common substring from the algorithm disclosed in Figure 4 in Chan.** Accordingly, the combination of Kilpatrick and Chan clearly teach away from the limitations of “calculating a Levenshtein matrix of a first string and a second string,” “determining a Levenshtein distance from said Levenshtein matrix,” and “determining a largest common substring from said Levenshtein matrix” as recited in Claim 1.

Furthermore, Kilpatrick discloses utilizing a Levenshtein matrix/Levenshtein distance to measure the “**magnitude of the difference** between a system call sequence in a stored profile and the system call sequence that is generated by a program” (col. 9, lines 26-30). In contrast, Chan

discloses utilizing a longest common substring to measure similarities. One skilled in the art appreciates that a technique of measuring the difference teaches away from determining a similarity. Accordingly, Kilpatrick clearly teaches away from the Examiner's suggestion to combine the Kilpatrick with Chan.

Applicant also notes for the record that the rejection of Claim 1 does not show that the prior art teaches or suggests "determining if said first string is a match to said second string based upon said similarity." Accordingly, the Examiner has failed to make a prima facie case of obviousness as a matter of law.

For each of the reasons set forth above, Applicant respectfully submits that Claim 1 is patentable over Kilpatrick in view of Chan. Accordingly, Applicant requests that the obviousness rejection of Claim 1 be withdrawn and that Claim 1 be allowed.

**Claims 2-5** are allowable by virtue of their dependency on base Claim 1, as well as the additional elements they recite. Accordingly, Applicant respectfully requests that the obviousness rejection of Claims 2-5 be withdrawn and that Claims 2-5 be allowed.

Claims 6-20 stand rejected under 35 U.S.C. 103 as being obvious in view of the combination of U.S. Patent No. 6,742,124 to Kilpatrick, U.S. Patent Application Publication No. 2003/0004716 to Haigh and U.S. Patent No. 6,697,844 to Chan.

With regard to **Claims 6 and 14**, the Office refers to Kilpatrick as teaching determining a Levenshtein distance between a first and second string from the calculation of a Levenshtein matrix. The Office further refers to Haigh and Chan as both teaching **separately** determining a

longest common substring between a first and second string. However, neither Chan nor Haigh teach or suggest determining the longest common substring “from said Levenshtein matrix” as recited in Claim 1. Therefore, if one skilled in the art were to combine the teachings of Kilpatrick, Haigh and Chan they would first calculate the Levenshtein matrix, second determine the Levenshtein distance from the Levenshtein matrix and third separately calculate the longest common substring from the algorithm disclosed in Figure 4 in Chan, or in Figure 5 in Haigh. Accordingly, the combination of Kilpatrick, Haig and Chan clearly teaches away from the limitations of “calculating a Levenshtein matrix of a first string and a second string,” “determining a Levenshtein distance from said Levenshtein matrix,” and “determining a largest common substring from said Levenshtein matrix” as recited in Claim 6 and 14.

Furthermore, Kilpatrick discloses utilizing a Levenshtein matrix/Levenshtein distance to measure the “magnitude of the difference between a system call sequence in a stored profile and the system call sequence that is generated by a program” (col. 9, lines 26-30). In contrast, Haig discloses utilizing natural language algorithms or techniques to determine similarity factors for two or more sentences. The overall similarity may be determined from the weighting of the similarity factors. Chan disclose utilizing a longest common substring to measure similarities. One skilled in the art appreciates that a technique of measuring the difference teaches away from determining a similarity. Accordingly, Kilpatrick clearly teaches away from the Examiner’s suggestion to combine Kilpatrick with Haigh and/or Chan.

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Applicant also notes for the record that the rejection of Claims 6 and 14 do not show that the prior art teaches or suggests “determining if said first string is a match to said second string based upon said similarity” or “numerical score.” Accordingly, the Examiner has failed to make a prima facie case of obviousness as a matter of law.

For each of the reasons set forth above, Applicant respectfully submits that Claims 6 and 14 are patentable over Kilpatrick in view of Haigh and Chan. Accordingly, Applicant requests that the obviousness rejection of Claims 6 and 14 be withdrawn and that Claims 6 and 14 be allowed.

**Claims 7-13 and 15-20** are allowable by virtue of their dependency on respective base Claims 6 and 14, as well as the additional elements they recite. Accordingly, Applicant respectfully requests that the obviousness rejection of Claims 7-13 and 15-20 be withdrawn and that Claims 7-13 and 15-20 be allowed.

#### Conclusion

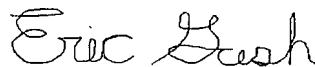
For all the reasons advanced above, Applicants respectfully submit that the present application is in condition for allowance and that action is earnestly solicited. The Examiner is invited to contact Applicants’ undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

The Commissioner is hereby authorized to charge any additional fees, which may be required for this amendment, or credit any overpayment, to Deposit Account 504160. In the

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event that an extension of time is required, or may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account 504160.

Respectfully submitted,  
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